L 32 1915

LEVEL BOOK

N. W. P. R. R. CO.

14.113.0034

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MADE BY
The Hicks-Judd Company
Bookbinders, Printers
Loose Leaf Systems
51-65 First St. San Francisco
★★ Give above number when ordering
Duplicat.

Book L-32-

3 ε

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ions L1 Line 11/16/15

L2 "

est Sw. X sections on River Bank

"

el #4

clearances 4/26/16

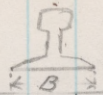
4/4/16

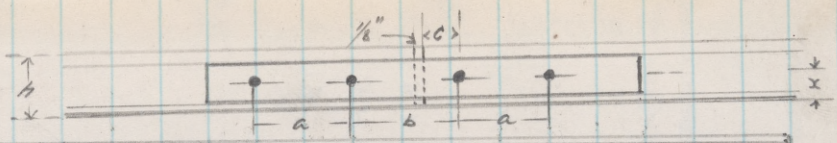
over spar 4/15-/16

Trestle 17D 4/14/16

s

a





Weight	Brand	a	b	c	X	M.W.S.D.	Remarks
50	A. & R. I. Co						
50	Scranton						
50	Moss Bay						
50	Bico-76	5"					
50	L. I. & S. Co						
50	P. S. Co	5"	5"	2 7/16		X-144	A. S. C. E.
50	P. S. Co	5"	5"			X 143	A. S. C. E.
54	P. S. C.	5"	7"			X 130	
56	Barrows	5"	6"			X 142	
56	Scranton	5 1/2	7"			X 162	8-76
56	L. I. & S. Co	5 1/4	5 1/4	2 9/16		X-134	
56							
56							
56	Cambria					No 511 - A. S. C. E.	

Angle Bars

(2)

Sect			
104	Bico Steel 84		
105	Tool [illegible]		
106	Pl. Bars	22 PSCo 90	

Section ←	MARK →	Weight
	Scranton 82 steel	
	" 2 83 "	
	MossBay steel Sec 101	50 lbs per yd
	Bico 76	
	Scranton.	5-6
	Scranton - L.I & C.Co 3-89	5-0
	PSCo 12 PS 1690.1	5-0
	Bico 83	
	Bico Steel 84	

	a	Ht. Rail	b	X	Wt
Lagunitas	5		7	1½	
Tocaloma	5		8		
Pt Reys	6	4"	6		

a	b	c	h	B	X	Location	
45"	7		3½	4"		Occidental to	63-D
5							
5	5¼					Free Stone to ?	
5½	6			3⅞		62-E	
5	5					} 1700' Tunnel	
5	8						
6	6					Clark Summ & Fallones	
5	7					Fallones	
5	7					Tomales	

section ← MARK → weight

a b c 4 B X

Mile 62 - Bad rails to be Changed

𝍸 𝍸 𝍸 𝍸 𝍸 111 = 28

Mile 61

𝍸 𝍸 𝍸 𝍸 𝍸

𝍸 𝍸 1-36

Mile - 60

𝍸 𝍸 𝍸 𝍸 𝍸 111 = 28

Valley ford spur good rails.

111

Mile 62 Bad rails Ends Can be cut

IIII IIII IIII II = 17

Mile - 61

IIII IIII IIII II = 17

Mile 60 -

IIII IIII I = 11

B.M.				100^{00}
137+75				
	5^{06}	105^{06}		
$137+78^{22}$			3^{50}	101^{6}
8			3^{80}	101^{3}
+50			4^{60}	100^{5}
$8+95^{86}$	B.C.		5^{60}	99^{5}
$9+25^{86}$			5^{7}	99^{4}
$+55^{86}$			6^{0}	99^{1}
$+88^{86}$	C.C. 18 [illegible]		5^{5}	99^{6}
140			5^{4}	99^{7}
+50			4^{8}	100^{3}
1			4^{9}	100^{2}
+50			5^{3}	99^{8}
2+01			5^{6}	99^{5}
+46			5^{7}	99^{4}
⊙	32^{40}	102^{665}	5^{635}	99^{425}
3			3^{5}	99^{2}
$143+21^{73}$	C.C.		4^{3}	98^{4}
			3^{8}	98^{9} ~ 98^{8}
+31			5^{5}	97^{2}
$+34^{5}$			9^{3}	93^{4}
+43			11^{1}	91^{6}
+48				87^{8}
+52				89^{0}
$+54^{73}$				88^{5}

L Line

FINISHED GRADE

11-16-15

Ass. Ele. Stake 20' Rt of E.S. 139+70

100 60

Top of Tie 100 58

100 47

100 21

99 97

99 81

99 66

99 49

99 43

99 17

Top of Tie 98 91

" " 98 65

" " 98 39

98 15

98 13 142+50 Grade Change

97 815

97 678

98 8 Top of Tie West End Trestle 25·H

98 5 = " East " " "

97 620

97 60

97 54

97 51

97 49

97 47

-0 52

-0 63

		102 66/5		
143+57				84 4/
+62				82 5/
+74				81 5/
+79				79 5/
+87 73/				79 3/
+99 73/				79 3
144+14 73/	E.C.			85 1/
+15				86 2/
+19				86 2/
+28				81 5/
+37				89 6/
+40			71/	95/ 6
+45 76/	B.C. T-3		65/	96 2/
+55			56/	97 1/
+75 76/			47/	98 0/
145+05 76/			44/	98 3/
+12			14/	101 3/
+24			04/	102 3/
+30				104 3
+32				103 1/
+35 76/	C.C.			102 6/
+44				103 2/
+50				108 6/
146			67/	96 0/
+50			70/	95 7
+73 43/	C.C. T-3		68/	95 9/
7+03 43/			69/	95 8/
+33 43/			70/	95 7/
147+63 43/	E.C.		72/	95 5/

4 Line.

97 46
97 413
97 347
97 315
97 28
97 185
97 09
97 09
97 065
97 008
96 95
96 93
96 895
96 835
96 705
96 515
96 475
96 40
96 36
96 35
96 33
96 28
96 240
95 930
95 615
95 468
95 28
95 10
Top of Tie 94 91

		102 66.5		
148+10 .28	B.C.T-3		7 .3	95 .4
+40 .28			7 .4	95 .3
+70 .28			7 .6	95 .1
149+00 .28			7 .7	95 .0
+15 .28	C.C. 11°45'		7 .8	94 .9
⊙	3 .22	98 76.5	7 120	95 .545
+50			4 .2	94 .6
150			4 .6	94 .2
+50			4 .9	93 .9
B.M.			2 86.5	98 900
151			5 .3	93 .5
+52 .73	C.C. 7-3		5 .5	93 .3
+97 .73			5 .7	93 .1
2+27 .73			5 .9	92 .9
152+57 .73			6 .0	92 .8
153+00 .99	B.C.T-4		6 .2	92 .6
⊙	19.50	94 63.5	6 080	92 .685
+30 .99			2 .1	92 .5
+69 .99	C.C. 14°4		2 .3	92 .3
154			2 .9	91 .7
+50			3 .4	91 .2
+90			2 .9	91 .7
155+05			3 .0	91 .6
+50			3 .6	91 .0
			3 .8	90 .8
			4 .5	90 .1

L Line

Top of Tie 94 615
" " 94 426
" " 94 237
" " 94 048
" " 93 954

-0.63

" " 93 735
" " 93 420
" " 93 105

On Rwd Stump 11' Rt of E.S. 149+25

Top of Tie 92 790
" " 92 458
" " 92 175
" " 91 986
" " 91 83 X152+50 Grade Change.

" "

" "

-0.63

℄ County Road

Top of Tie West End Trestle 25-V
" " " East " " "

94 63/5

155+67
+85
+87
+90
+95
+98
156
+09
+10
+16
+19
+43
+50
+61
+72
+73
+83
+88

3 6
4 9
9 5
8 8
10 0

91 0
89 7
85 1
85 8
84 6
79 3
79 3
77 7
73 8
73 0
73 8
69 5
70 9
71 4
72 7
76 8
80 9
79 0

N7
+04
+06
+25 35
+49 35
⊙ 2 130
+79 35

C.C.T-4

8 9
10 5
4 7
4 5
4 8
46 25
2 9

85 7
84 1
89 9
90 1
89 8
90 010
89 2

L, Line

Top of Tie

		92 1.40		
157+94.35	E.C.		2.8	89.3
158			2.8	89.3
+50			3.3	88.8
159			3.9	88.2
+07.15	B.C. T-4		4.0	88.1
+34.15			3.7	88.4
+64.15			3.7	88.4
+85.15	C.C. 16°R		3.9	88.2
160			4.1	88.0
+50			5.3	86.8
161			4.6	87.5
⊙	3.900	91.770	4.270	87.870
B.M.			4.450	87.320
⊙	4.390	92.260		87.870
+50			3.90	88.4
+80			4.5	87.8
162			2.7	90.1
+25			+2.1	94.4
+50			4.0	88.3
+75			6.5	85.8
163			6.2	86.1
+17.18	C.C. T-4		5.8	86.5
+53.18			6.0	86.3
+83.18			6.3	86.0
163+98.18	E.C.		6.4	85.9
164+82.0			6.9	85.4
167+60.3			8.8	83.5

L_1 Line

Top of Tie

On Rwd stump - 18' Lt of E.S. L_1 160+43
9' Lt " " L_2 160+53 -

165+45.8 Top of Tie = 85.00

Top of Tie
" "
" "
" " West End Trestle 25.- L. (Length = 278.3
" " East End " "

LAGUNITAS - EAST

B.M.				87 320
⊙	7 365	94 685	2 425	92 260
⊙	4 775	97 035	2 560	94 475
⊙	5 255	99 730		
B.M.			3 830	96 900
⊙	4 810	103 750	0 790	98 940
⊙	4 295	105 055	2.990	100 760
B.M.			5 045	100 010

L1 Line

-CHECK LEVELS-

On Rwd Stump 18' Lt of E.S. L1 160+43 -
9' Lt of E.S. L2 160+53

On Rwd Stump 11' Rt of E.S. 149+25 (Ele = 95.90)

Stake 20' Rt of E.S. 139+70 (Ele = 100.00)
0.0' Out -

14Z + 50 = 99.13 - 0 52

15Z + 50 = 92 83 - 0 63

	Ground Elev-	Sub-Grade	Width of Roadbed	Side Slope-
137+75		100 60		
138	101 30	100 47	1° RT	1½-1
+50	100 5	100 21	3 7 RT	1-1
+95 86	99 5	99 97	6 4 RT	1-1
139+25 86	99 4	99 82	7 8 RT	1-1
+55 86	99 1	99 66	.8 3 RT	1-1
+88 86	99 6	99 49	7° RT	1½-1
140	99 7	99 43	6 3 RT	1½-1
+25	100 5	99 30		½-1
+50	100 3	99 17	3 4 RT	1½-1
141	100 2	98 91	0 7 RT	1½-1
+50	99 8	98 65	0 2 LT	1½-1
142+01	99 5	98 39	0 1 RT	1½-1

1^{0} = Top of Tie to Sub Grade - L1 Line

4" Posts Inside Fence Measurements = X

6.5.7

$\frac{13}{-1^{2}}$ ($\frac{8}{+0^{0}}$) $\frac{7}{+0^{1}}$ $\frac{0}{+0^{8}}$ $\frac{4}{+1^{0}}$ $\frac{8}{\pm 0}$

30' Creek

$\frac{30}{-13^{2}}$ ($\frac{18^{0}}{-10^{0}}$) $\frac{18^{1}}{X}$ $\frac{12}{-6^{0}}$ $\frac{10^{5}}{-4^{2}}$ $\frac{8}{-3^{0}}$ $\frac{4}{-0^{5}}$ $\frac{0}{+0^{3}}$ $\frac{7}{+0^{8}}$ $\frac{8}{+0^{5}}$ $\frac{13}{+0^{2}}$ 13

Creek

($\frac{27^{5}}{17^{4}}$) $\frac{20}{-16^{4}}$ $\frac{18}{-13^{0}}$ $\frac{14^{5}}{-10^{3}}$ $\frac{14^{5}}{X}$ $\frac{12}{-9^{2}}$ $\frac{8}{-6^{0}}$ $\frac{6}{-4^{0}}$ $\frac{0}{-0^{5}}$ $\frac{4}{+0^{7}}$ $\frac{8}{+0^{8}}$ $\frac{13}{+0^{2}}$

($\frac{26^{1}}{-16^{1}}$) $\frac{22}{-15^{5}}$ $\frac{18}{-11^{2}}$ $\frac{15^{6}}{-9^{5}}$ $\frac{15^{6}}{X}$ $\frac{8}{-6^{6}}$ $\frac{6}{-4^{8}}$ $\frac{4}{-2^{9}}$ $\frac{0}{-0^{4}}$ $\frac{5}{+0^{6}}$ $\frac{8}{+0^{6}}$ $\frac{12}{+0^{5}}$ $\frac{14}{-0^{1}}$

$\frac{20^{0}}{X}$ $\frac{18^{6}}{-9^{2}}$ $\frac{17}{-8^{3}}$ ($\frac{16^{2}}{-8^{2}}$) $\frac{8}{-5^{3}}$ $\frac{0}{-0^{6}}$ $\frac{1}{+0^{2}}$ $\frac{5}{+0^{8}}$ $\frac{8}{+0^{6}}$ $\frac{15}{0}$

$\frac{22^{3}}{X}$ ($\frac{18^{5}}{-7^{0}}$) $\frac{8}{-5^{6}}$ $\frac{2}{-0^{7}}$ $\frac{0}{+0^{1}}$ $\frac{3}{+1^{0}}$ $\frac{8}{+0^{7}}$ $\frac{11}{+0^{4}}$ $\frac{13}{+0^{1}}$ $\frac{18^{0}}{X}$

$\frac{0}{+0^{3}}$

$\frac{24^{8}}{X}$ $\frac{14}{-0^{9}}$ ($\frac{8^{2}}{+0^{1}}$) $\frac{8}{+0^{3}}$ $\frac{5}{+1^{0}}$ $\frac{0}{+1^{2}}$ $\frac{8}{+0^{7}}$ $\frac{10}{+0^{3}}$ $\frac{13}{+1^{8}}$ $\frac{14^{5}}{X}$

$\frac{26^{8}}{X}$ $\frac{13}{-1^{7}}$ ($\frac{8^{6}}{+0^{4}}$) $\frac{8}{+0^{6}}$ $\frac{7}{+1^{0}}$ $\frac{0}{+1^{1}}$ $\frac{6}{+0^{9}}$ $\frac{8}{+0^{3}}$ ($\frac{8^{5}}{+0^{3}}$) $\frac{12^{6}}{X}$

$\frac{28^{7}}{X}$ ($\frac{9^{2}}{+0^{8}}$) $\frac{8}{+1^{0}}$ $\frac{6}{+0^{8}}$ $\frac{3}{+1^{5}}$ $\frac{0}{+1^{3}}$ $\frac{4}{+1^{0}}$ $\frac{6}{+0^{7}}$ $\frac{8}{+2^{1}}$ $\frac{9^{2}}{X}$

$\frac{31^{2}}{X}$ $\frac{14^{5}}{+3^{0}}$ ($\frac{10^{9}}{+1^{9}}$) $\frac{8}{+1^{7}}$ $\frac{5}{+1^{5}}$ $\frac{0}{+1^{2}}$ $\frac{5^{5}}{+0^{8}}$ $\frac{8}{+2^{7}}$ $\frac{8^{0}}{X}$

$\frac{31}{X}$ $\frac{16}{+3^{4}}$ ($\frac{8^{6}}{+0^{4}}$) $\frac{8}{+0^{4}}$ $\frac{6}{+0^{7}}$ $\frac{3^{5}}{+1^{3}}$ $\frac{0}{+1^{1}}$ $\frac{5^{5}}{+0^{6}}$ $\frac{8}{+2^{1}}$ $\frac{8^{2}}{X}$

-0^{52}

142+35				
+46	99^{4}	98^{15}	1^{3} Rt	$1\frac{1}{2}$-1
2+50		X 98^{13}		
+79	99^{3}	97^{95}		
143	99^{2}	97^{81}	3^{7} Rt	
+34° line of W.B'lkh'd - 25-H				
+21^{73}			5^{2} Rt	
+28	98^{3}	97^{63}		
+34	96^{7}	97^{6}		
+35°	93^{4}	97^{6}	6^{8} Rt	
+48	87^{8}	97^{51}		
+55	88^{5}	97^{47}	8^{1} Rt	
+64	82^{5}	97^{40}	9^{4} Rt	
+79	79^{5}	97^{31}	10^{0} Rt	
+95	79^{3}	97^{15}	10^{8} Rt	

L Line

3 yards of Loose Rock on Left at 6' Out.

27 X | 9 +10 | 8 +12 | 3 +15 | 0 +12 | 4 +03 | 7 +05 | 8 +12 | 10 X | 10 +74

25 X | 25 -71 | 12 -12 | 8 -04 | 8 -03 | 4 +07 | 0 +14 | 6 +09 | 8 +05 | 12 +15 | 11 X

24 X | 20 -80 | 17 -78 | 13 -59 | 8 +36 | 3 +01 | 0 +14 | 7 +09 | 8 +05 | 12 0 | 14 +10 | 13 X

23 X | 18 -71 | 9 -58 | 8 -52 | 4 -83 | 0 +07 | 3 +14 | 8 +11 | 11 +04 | 16 -01 | 19 X

20 -72 | 10 -52 | 8 -50 | 7 -45 | 0 -09 | 3 +14 | 8 +11 | 14 -17 | 22 -40

21 -71 | 14 -69 | 8 -51 | 0 -39 | 8 -39 | 13 -27 | 17 -23

23 X | 23 -87 | 12 -69 | 8 -65 | 3 -75 | 0 -97 | 8 -97 | 13 -97 | 18 -84 | 29 X | 30 -71

23 -100 | 8 -55 | 0 -70 | 8 -87 | 14 -102 | 20 -97 | 24 -95

33 -179 | 18 -165 | 8 -133 | 6 -148 | 0 -149 | 8 -146 | 20 -148 | 29 -83 | 36 X

3 -185 | 25 -188 | 8 -182 | 0 -178 | 8 -172 | 24 -173 | 14 36

25 -146 | 14 -158 | 11 -174 | 8 -175 | 0 -178 | 8 -178 | 25 -176 | 35 -166

			TEST 1/6	
144+18	86 E	97 05	10 8 R	
+25	81 8	97 02		
+34	93 0	96 98		1½-1
+39 8	line East Bulkhead 25-H			
+46 0	96 E	96 89	11 6 Rt	½-1
+76	98 0	96 70	12 1 Rt	½-1
+92	97 9	96 61	12 3 Rt	¼-1
145+06	98 3	96 52	12 4 Rt	¼-1
+20	101 1	96 43		¼-1
+3 526			11 5 Rt	
+50	108 6	96 24	11 4 Rt	¼-1
146	96 0	95 93	8 2 Rt	½-1
+50	95 7	95 61	4 2 Rt	½-1
+73	95 9	95 47	2 3 Rt	1-1

L1 Line

$\frac{17}{-2^{0}}$ $\frac{8}{-6^{4}}$ $\frac{6^{5}}{-7^{1}}$ $\frac{5}{-8^{7}}$ $\frac{0}{-10^{9}}$ $\frac{8}{-15^{9}}$ $\frac{18}{-17^{8}}$ $\frac{26^{5}}{-17^{4}}$ $\frac{35}{-18^{1}}$

$\frac{17}{+0^{2}}$ $\frac{10}{-2^{9}}$ $\frac{8}{-4^{3}}$ $\frac{5}{-7^{6}}$ $\frac{0}{-15^{4}}$ $\frac{8}{-15^{9}}$ $\frac{30}{-17^{0}}$ $\frac{40}{-18^{3}}$

$\frac{15^{5}}{+4^{3}}$ $\frac{8^{7}}{-0^{5}}$ $\frac{8}{-0^{7}}$ $\frac{5}{-2^{7}}$ $\frac{0}{-4^{0}}$ $\frac{6}{-5^{3}}$ $\frac{8}{-4^{7}}$ $\frac{16^{5}}{-5^{4}}$ $\frac{32}{-8^{2}}$

$\frac{14^{5}}{+3^{8}}$ $\frac{13^{4}}{+1^{3}}$ $\frac{10}{+3^{2}}$ $\frac{8}{+2^{0}}$ $\frac{6}{-0^{1}}$ $\frac{0}{-0^{7}}$ $\frac{8}{+1^{2}}$ $\frac{10^{0}}{+1^{3}}$ $\frac{15}{+1^{4}}$

$\frac{35}{-21^{6}}$ $\frac{24^{0}}{X}$ $\frac{24}{+17^{3}}$ $\frac{11^{0}}{+6^{3}}$ $\frac{16}{+13^{0}}$ $\frac{8}{+4^{4}}$ $\frac{4}{+2^{3}}$ $\frac{0}{+1^{3}}$ $\frac{5}{+0^{2}}$ $\frac{8}{+0^{8}}$ $\frac{9^{5}}{+1^{2}}$ $\frac{9^{1}}{+1^{1}}$ $\frac{15}{+1^{7}}$

$\frac{29}{-23^{3}}$ $\frac{22}{+19^{1}}$ $\frac{16}{+15^{5}}$ $\frac{11^{4}}{+13^{4}}$ $\frac{8^{3}}{+11^{4}}$ $\frac{8}{+9^{9}}$ $\frac{0}{+1^{3}}$ $\frac{5^{5}}{+0^{3}}$ $\frac{8}{+1^{1}}$ $\frac{9}{+1^{4}}$ $\frac{15}{+1^{8}}$

$\frac{32}{+27^{6}}$ $\frac{17^{9}}{+15^{9}}$ $\frac{16^{5}}{+18^{9}}$ $\frac{11}{+15^{3}}$ $\frac{8}{+9^{3}}$ $\frac{0}{+1^{8}}$ $\frac{6^{5}}{+0^{2}}$ $\frac{8}{+0^{5}}$ $\frac{9}{+1^{2}}$ $\frac{15^{5}}{+1^{6}}$

$\frac{26}{25^{6}}$ $\frac{21}{+22^{3}}$ $\frac{17}{+20^{8}}$ $\frac{8}{+15^{2}}$ $\frac{0}{+4^{7}}$ $\frac{6}{+0^{6}}$ $\frac{8}{+1^{0}}$ $\frac{15}{+1^{7}}$

$\frac{14^{0}}{+23^{8}}$ $\frac{25}{+30^{1}}$ $\frac{15}{+24^{0}}$ $\frac{8}{+19^{9}}$ $\frac{4}{+17^{7}}$ $\frac{0}{+12^{4}}$ $\frac{5}{+0^{4}}$ $\frac{8}{+1^{1}}$ $\frac{15^{5}}{+1^{5}}$

$\frac{18^{4}}{+20^{8}}$ $\frac{24}{+23^{3}}$ $\frac{11}{+16^{1}}$ $\frac{0}{+0^{1}}$ $\frac{4}{+0^{1}}$ $\frac{8}{+1^{0}}$ $\frac{12}{+1^{3}}$ $\frac{16}{+0^{5}}$

$\frac{10^{2}}{+4^{4}}$ $\frac{12}{+6^{0}}$ $\frac{8}{+2^{6}}$ $\frac{2}{+0^{1}}$ $\frac{0}{+0^{1}}$ $\frac{3}{+0^{8}}$ $\frac{8}{+0^{8}}$ $\frac{10^{5}}{+0^{6}}$

$\frac{12}{+2^{7}}$ $\frac{10^{1}}{+2^{1}}$ $\frac{8}{+1^{2}}$ $\frac{5}{+0^{2}}$ $\frac{0}{+0^{4}}$ $\frac{6}{+0^{5}}$ $\frac{8}{+0^{2}}$ $\frac{16}{-5^{1}}$

	Ground Elev.	Sub-Grade		
L_1 15Z+22?			℄	
+57?			℄	
L_1 153+01 =			℄	
L_2 153+01 =				
L_2 153+40	92.5	91.26	℄	
+70	92.33	91.07	0.1 Lt	
L_2 154	92.33	90.88	0.2 Lt	1-1
+24	92.2	90.75		1-1
+30	92.2	90.70	1.5 Lt	1/4-1
+43	92.1	90.53		1/4-1
+50			2.8 Lt	
+59	92.2	90.50		1/4-1
+75	91.7	90.40		1/2-1
L_2 158+05	91.6	90.22	7.5 Lt	1 1/2-1
+20	89.9	90.13	7.5 Lt	1 1/2-1

L2 Line

$\frac{16}{+12^{3}}$ $\frac{8}{+0^{3}}$ $\frac{6}{+0^{3}}$ $\frac{4}{+0^{9}}$ $\frac{0}{+1^{2}}$ $\frac{4}{+1^{5}}$ $\frac{8}{+0^{6}}$ $\frac{11}{-1^{2}}$ $\frac{18}{-8^{1}}$ $\frac{23}{-10^{3}}$ $\frac{35}{-13^{3}}$

$\frac{+25^{5}}{+8^{6}}$ $\frac{13^{5}}{+5^{6}}$ $\frac{8}{+0^{6}}$ $\frac{6}{+0^{4}}$ $\frac{4}{+1^{0}}$ $\frac{0}{+1^{2}}$ $\frac{4}{+1^{5}}$ $\frac{8}{+1^{3}}$ $\frac{11}{+1^{2}}$ $\frac{15}{-2^{9}}$

$\frac{10}{+9^{4}}$ $\frac{9}{+0^{3}}$ $\frac{8}{+0^{3}}$ $\frac{6}{+0^{3}}$ $\frac{4}{+0^{9}}$ $\frac{0}{+1^{4}}$ $\frac{4}{+1^{5}}$ $\frac{6}{+1^{2}}$ $\frac{8}{+1^{3}}$ $\frac{9^{4}}{+1^{4}}$ $\frac{12}{+1^{6}}$

$\frac{14}{+12^{5}}$ $\frac{9}{+0^{5}}$ $\frac{8}{+0^{5}}$ $\frac{6^{5}}{+0^{5}}$ $\frac{5}{+1^{0}}$ $\frac{0}{+1^{5}}$ $\frac{3}{-1^{6}}$ $\frac{5}{+1^{6}}$ $\frac{10^{7}}{+2^{7}}$ $\frac{13^{5}}{+2^{9}}$ $\frac{19}{+3^{3}}$

Same As 154+54 $\frac{0}{+1^{5}}$ $\frac{2}{+1^{4}}$ $\frac{4}{+1^{3}}$ $\frac{7}{+7^{2}}$ $\frac{8}{+7^{2}}$ $\frac{9^{8}}{+7^{5}}$ $\frac{13^{5}}{+9^{4}}$ $\frac{17}{+8^{4}}$

$\frac{13}{+12^{7}}$ $\frac{9}{+0^{7}}$ $\frac{8}{+0^{7}}$ $\frac{5^{5}}{+1^{2}}$ $\frac{0}{+1^{6}}$ $\frac{3}{+1^{3}}$ $\frac{5^{5}}{+8^{1}}$ $\frac{8}{+10^{4}}$ $\frac{10^{5}}{+12^{2}}$ $\frac{11}{+12^{2}}$ $\frac{19}{+10^{5}}$

11^{2} to toe of Slope. $\frac{0}{+1^{6}}$ $\frac{3^{5}}{+1^{3}}$ $\frac{5}{+4^{8}}$ $\frac{8}{+9^{7}}$ $\frac{10}{+11^{8}}$ $\frac{11^{0}}{11^{9}}$ $\frac{16^{5}}{+11^{7}}$

$\frac{18^{5}}{+10^{9}}$ $\frac{13}{+0^{9}}$ $\frac{11}{+1^{4}}$ $\frac{8}{+1^{1}}$ $\frac{2}{+1^{7}}$ $\frac{0}{+1^{3}}$ $\frac{1}{+1^{1}}$ $\frac{4^{5}}{+1^{7}}$ $\frac{8}{+1^{8}}$ $\frac{8^{8}}{+1^{6}}$ $\frac{9^{5}}{+1^{7}}$ $\frac{17}{+0^{2}}$

$\frac{24}{+1^{0}}$ $\frac{8}{+1^{7}}$ $\frac{6}{+1^{9}}$ $\frac{0}{+1^{4}}$ $\frac{8}{+0^{4}}$ $\frac{8^{2}}{+0^{1}}$ $\frac{15}{-0^{4}}$

$\frac{14^{5}}{+0^{7}}$ $\frac{8}{+1^{4}}$ $\frac{5}{+1^{7}}$ $\frac{0}{-0^{2}}$ $\frac{6}{-1^{0}}$ $\frac{8}{-0^{9}}$ $\frac{9^{5}}{-1^{0}}$ $\frac{13^{5}}{-0^{9}}$

L2 155+50	88 8	89 94	12 1 Lt	
+87	87 1	89 70		
L2 156	81 9	89 66	16 9 Lt	
+15	73 2	89 52		
+30	70 6	89 44		
+50	70 1	89 31	17 3 Lt	
+68	73 2	89 19		
+77	73 1	89 13	13 42 Lt	
+91	82 5	89 04		
L2 157+04	85 9	88 97		1½-1
+10			7 38 Lt	
+12	84 4	88 91		
+15	88 9	88 89		

15 +08 | 8 +14 | 3 −07 | 0 −17 | 8 −14 | (10 −17) | 20 −19

19 +09 | 13 +12 | (87 −05) | 8 −08 | 6 −18 | 0 −25 | 8 −27 | (11 −26) | 15 −27 | 21 −46

25 −36 | 14 −43 | 10 −52 | 8 −71 | 0 −78 | 6 −73 | 8 −78 | 18 −88 | (21 −87) | 28 −103

28 −113 | 225 −123 | 13 −128 | 11 −162 | 8 −162 | 0 −163 | 8 −166 | 20 −166

245 −174 | 185 −179 | 8 −184 | 0 −182 | 8 −191 | 21 −195

30 −198 | 16 −181 | 8 −197 | 0 −195 | 8 −176 | 185 −167 | 265 −127

30 −195 | 23 −195 | 15 −176 | 8 −180 | 5 −179 | 0 −160 | 2 −151 | 45 −123 | 8 −117 | 245 −97

30 −193 | 14 −179 | 8 −165 | 0 −160 | 4 −119 | 8 −102 | 10 −99 | 18 −87

28 −167 | 17 −166 | 12 −118 | 8 −96 | 0 −65 | 8 −60 | 125 −54 | 175 −34

21 +19 | (11 −21) | 13 −14 | 8 −23 | 0 −31 | 2 −37 | 5 −52 | 8 −70 | 105 −97 | 17 −99 | 18 −85

(215 −90) | 26 −109

24 −69 | (147 −41) | 14 −41 | 8 −49 | 0 −45 | 1 −18 | 8 −07 | (85 −04) | 12 +06

22 −60 | 8 +17 | 5 +13 | 0 0 | 5 −07 | (8 0) | 135 +15

L2 157+40	90 1/4	88 7/4	0 9/4	1½-1 X 1-1
+70	89 4/4	88 5/5	4 7/4 R+	1-1
L2 158	90 0/0	88 36/36	7 2/4 R+	1-1
+10	90 2/2	88 30/30		1-1
+50	89 8/8	88 04/04	8 7/4 R+	1-1
+80	90 1/1	87 85/85	8 8/4 R+	1-1
L2 159	89 5/5	87 73/73	8 9/4 R+	1-1
+36	89 2/2	87 50/50	8 9/4 R+	1½-1
+58	87 5/5	87 36/36	8 6/4 R+	1½-1
+83	87 9/9	87 21/21	8 1/4 R+	1½-1
L2 160+03	87 1/1	87 08/08	7 1/4 R+	1½-1
+16 2/2			6 4/4 R+	
+35	87 8/8	86 90/90	5 4/4 R+	1½-1
+47	12"X12"X13 5/5 Box		2 6/4 on Left	# 25 K-
+50			4 8/4 R+	
+73	88 1/1	86 72/72	4 2/4 R+	1½-1

$\frac{19}{-\sqrt{2}}$ $\frac{11}{-04}$ $\frac{8}{0}$ $\frac{4^{5}}{+12}$ $\frac{0}{+14}$ $\frac{2^{5}}{+17}$ $\frac{6}{+09}$ $\frac{8}{+12}$ $\frac{11^{5}}{+35}$ $\frac{N}{+66}$

$\frac{20}{-31}$ $\frac{8^{7}}{+07}$ $\frac{8}{+10}$ $\frac{3^{5}}{+12}$ $\frac{0}{+08}$ $\frac{8}{+17}$ $\frac{11}{+11}$ $\frac{13}{+12}$

$\frac{N}{+03}$ $\frac{13}{+19}$ $\frac{11^{0}}{+30}$ $\frac{8}{+\sqrt{1}}$ $\frac{5}{+65}$ $\frac{3}{+\sqrt{5}}$ $\frac{0}{+16}$ $\frac{3}{+09}$ $\frac{4}{+13}$ $\frac{8}{+17}$ $\frac{12}{+17}$ $\frac{13}{+13}$

$\frac{12}{+30}$ $\frac{10^{0}}{+20}$ $\frac{8}{+19}$ $\frac{0}{+19}$ $\frac{3}{+10}$ $\frac{4^{5}}{+14}$ $\frac{8}{+16}$ $\frac{12}{+17}$

$\frac{21^{3}}{X}$ $\frac{15}{+20}$ $\frac{10^{3}}{+23}$ $\frac{8}{+21}$ $\frac{2}{+27}$ $\frac{0}{+18}$ $\frac{3}{+09}$ $\frac{5^{5}}{+13}$ $\frac{8}{+14}$ $\frac{11}{+16}$ $\frac{14}{+01}$

$\frac{22}{-12}$ $\frac{21^{7}}{X}$ $\frac{17}{+14}$ $\frac{9^{8}}{+18}$ $\frac{8}{+27}$ $\frac{1}{+27}$ $\frac{0}{+25}$ $\frac{3}{+05}$ $\frac{6}{+10}$ $\frac{8}{+10}$ $\frac{12}{+10}$ $\frac{15}{+05}$

$\frac{9^{3}}{+13}$ $\frac{14}{+05}$ $\frac{8}{+13}$ $\frac{6}{+13}$ $\frac{1}{+25}$ $\frac{0}{+18}$ $\frac{3}{+07}$ $\frac{6}{+12}$ $\frac{8}{+13}$ $\frac{12}{+11}$ $\frac{14}{+06}$

$\frac{21}{-74}$ $\frac{21^{3}}{X}$ $\frac{18}{-66}$ $\frac{8}{-13}$ $\frac{2}{+15}$ $\frac{0}{+12}$ $\frac{3}{+09}$ $\frac{6}{+13}$ $\frac{8}{+11}$ $\frac{12}{+08}$ $\frac{15}{+02}$

$\frac{21}{-61}$ $\frac{20^{5}}{X}$ $\frac{164}{-\sqrt{6}}$ $\frac{8}{-30}$ $\frac{0}{+01}$ $\frac{4}{+03}$ $\frac{8}{+11}$ $\frac{11^{5}}{+11}$ $\frac{15}{0}$

$\frac{21^{5}}{X}$ $\frac{14^{6}}{-44}$ $\frac{14}{-43}$ $\frac{8}{-24}$ $\frac{3^{5}}{+08}$ $\frac{1}{+13}$ $\frac{0}{+07}$ $\frac{3}{+07}$ $\frac{\sqrt{}}{+13}$ $\frac{8}{+12}$ $\frac{11^{5}}{+09}$ $\frac{14^{5}}{-01}$

$\frac{22^{5}}{X}$ $\frac{22^{5}}{-73}$ $\frac{17^{6}}{-64}$ $\frac{16}{-61}$ $\frac{8}{-25}$ $\frac{3}{+05}$ $\frac{0}{0}$ $\frac{4}{+12}$ $\frac{8}{+10}$ $\frac{11}{+06}$ $\frac{14^{5}}{-02}$

$\frac{23}{-85}$ $\frac{18}{-78}$ $\frac{20^{0}}{-80}$ $\frac{8}{-31}$ $\frac{6}{-02}$ $\frac{2}{0}$ $\frac{0}{+09}$ $\frac{2}{+14}$ $\frac{8}{+08}$ $\frac{11^{5}}{-04}$ $\frac{15^{5}}{-04}$

$\frac{25^{6}}{X}$ $\frac{26}{+90}$ $\frac{21^{4}}{-89}$ $\frac{18}{-87}$ $\frac{8}{-32}$ $\frac{0}{+14}$ $\frac{7}{+09}$ $\frac{8}{+04}$ $\frac{11}{+03}$

B.M.				87.320
	7.555	94.875		
L2 153+40.05	B.C. T-4			92.5
+70				92.3
L2 154				92.3
+33.05	C.C. 18° Lt			92.2
+50				92.1
+90			2.9	92.0
5+05			3.3	91.6
+15			5.0	89.9
+50			6.1	88.8
+87			7.8	87.1
+97				82.3
6+09				78.1
+16				72.9
+29				71.7
+47				69.8
+50				70.1
+68				73.0
+76				73.0
6+77.40	C.C. T-4			74.0
+80				76.4
+92				82.4
7				84.1
+06			8.7	86.2
+09			8.7	86.2

L2 Line -

On Rwd stump 18' Lt of E.S. L1 160 + 43

Top of Tie	91 258
" " "	91 069
" " "	90 880
" " "	90 672
	90 565
	90 313
	90 219
	90 156
	89 936
	89 703
	89 640
	89 564
	89 520
	89 438
	89 325
	89 306
	89 193
	89 143
	89 134
	89 118
	89 042
	88 992
	88 954
	88 935

91 7

		94 87.5		
L2 157+13			7.0	87.9
+31			4.7	90.3
+40.4			4.8	90.1
7+70.4	E.C.		5.5	89.4
8			4.9	90.0
+50			5.1	89.8
+82			4.5	90.4
9			5.4	89.5
+15			5.1	89.7
+23.29	B.C. T.4		6.8	88.1
+26			5.5	89.4
+41			5.6	89.3
+53			7.1	87.8
+66			7.4	87.5
+77			6.3	88.6
+83			7.0	87.9
L2 160+16.20	C.C. 18°R4		7.6	87.3
+50			7.3	87.7
+62			6.8	88.1
⊙	5 26.5	92 58.5	75.5.5	87 32.0
L2 161			4.6	88.0
+50			4.8	87.8
2			5.1	87.5
+50			5.3	87.3

L2 Line

	Sub. Grade.		
	88908		
L2 155 + 92.6	Line of W. Bulkhead - Trestle 25-J		
L2 157 + 12.5	" " E.	"	" " "
	88795		
	88738		
	88549		
	88360		
	88045		
	87843		
	87730		
	87635		
	87583		
	87565		
	87470		
	87395		
	87313		
	87244		
	87206		
E.S. 160	87103	Grade Change -	
	86838		
	86775		
Top of Tie	86575		
" "	86312		
" "	86050		
	85788		

= 0.63

92 $\underline{5}$ $\underline{85}$

L_2 162+97$\underline{63}$ C.C.T-4	5$\underline{6}$	87$\underline{0}$
163		
3+30	5$\underline{9}$	86$\underline{7}$
+60	6$\underline{2}$	86$\underline{4}$
L_2 163+90$\underline{63}$ E.C.	6$\underline{5}$	86$\underline{1}$
L_2 164+15$\underline{44}$ P.O.T. =	6$\underline{7}$	85$\underline{9}$
L_1 163+98$\underline{18}$ E.C. =		
164		
164+00		

Grade = 85$\underline{00}$ Gradient

Lz Line

85 525
85 368
85 210
85 049

85 000
160 to 164 = -0 525

L_2 161	88°	86 57	3° Rt	1½ - 1
+50	87 8	86 31	1 3 Rt	1 - 1
L_2 162	87 5	86 05	0 1 Rt	1 - 1 Lt ½ - 1 Rt
L_2 +25	87 4	85 92	0 4 Lt	¼ - 1 Rt
+50	87 3	85 79	0 8 Lt	¼ - 1 Rt
+75	87 2	85 66	0 7 Lt	¼ - 1 Rt
L_2 162+97 6	87°	85 54	0 7 Lt	½ - 1 Rt
3+30			0 3 Lt	
+60			0 1 Rt	
+90			∠	
(2)+28	86 2	85 37		

Correct

$\frac{28}{X}$ $\frac{25}{-8^{7}}$ $\frac{16^{1}}{-5^{4}}$ $\frac{8}{-0^{9}}$ $\frac{7}{+0^{1}}$ $\frac{4}{+0^{1}}$ $\frac{1}{+1^{5}}$ $\frac{0}{+1^{4}}$ $\frac{6}{+0^{9}}$ $\frac{8}{+0^{3}}$ $\frac{9}{+0^{4}}$ $\frac{17}{+5^{7}}$ $\frac{26^{8}}{X}$

$\frac{13^{3}}{+5^{3}}$ $\frac{11}{+5^{3}}$ $\frac{8}{+3^{0}}$ $\frac{6}{+0^{8}}$ $\frac{4}{+0^{7}}$ $\frac{2^{5}}{+1^{6}}$ $\frac{0}{+1^{5}}$ $\frac{4^{5}}{+1^{1}}$ $\frac{6}{+0^{6}}$ $\frac{8}{+0^{8}}$ $\frac{9^{7}}{+1^{7}}$ $\frac{13^{0}}{+8^{9}}$

$\frac{14}{+2^{7}}$ $\frac{8^{5}}{+0^{3}}$ $\frac{8^{2}}{+0^{2}}$ $\frac{7}{+0^{2}}$ $\frac{3^{5}}{+1^{6}}$ $\frac{0}{1^{4}}$ $\frac{3}{+1^{3}}$ $\frac{6}{-0^{1}}$ $\frac{12^{7}}{+5^{1}}$ $\frac{9^{1}}{+2^{3}}$ $\frac{13}{+11^{6}}$ $\frac{19^{0}}{+20^{1}}$

$\frac{31^{0}}{X}$ $\frac{23}{+2^{2}}$ $\frac{12}{+2^{8}}$ $\frac{8}{+0^{3}}$ $\frac{7}{+0^{3}}$ $\frac{4}{+1^{8}}$ $\frac{0}{+1^{5}}$ $\frac{2^{5}}{+1^{3}}$ $\frac{4^{5}}{+0^{5}}$ $\frac{7}{+0^{4}}$ $\frac{8}{+2^{8}}$ $\frac{9^{1}}{+4^{3}}$ $\frac{15^{0}}{+21^{0}}$

$\frac{16^{5}}{+2^{4}}$ $\frac{10}{+0^{3}}$ $\frac{8}{+0^{2}}$ $\frac{4^{5}}{+1^{9}}$ $\frac{0}{+1^{5}}$ $\frac{2^{5}}{+1^{2}}$ $\frac{4}{+0^{5}}$ $\frac{5}{+0^{5}}$ $\frac{10}{+13^{1}}$ $\frac{15}{+17^{5}}$

$\frac{11^{7}}{+14^{9}}$ $\frac{18}{+22^{0}}$ $\frac{30}{+28^{0}}$

$\frac{18}{0}$ $\frac{8}{+0^{7}}$ $\frac{7}{+0^{7}}$ $\frac{4^{5}}{+1^{7}}$ $\frac{0}{1^{5}}$ $\frac{2^{5}}{+1^{2}}$ $\frac{4}{+0^{3}}$ $\frac{8}{+3^{4}}$ $\frac{9^{0}}{+3^{8}}$ $\frac{12}{+7^{9}}$ $\frac{19}{+19^{9}}$

$\frac{12^{5}}{+0^{5}}$ $\frac{8}{+1^{0}}$ $\frac{5}{+1^{8}}$ $\frac{0}{+1^{5}}$ $\frac{2^{5}}{+1^{1}}$ $\frac{4}{+0^{2}}$ $\frac{5}{+0^{2}}$ $\frac{8}{+1^{8}}$ $\frac{10}{+3^{6}}$

$\frac{22}{+16^{2}}$ $\frac{23^{3}}{X}$ $\frac{32}{+19^{6}}$

$\frac{15^{5}}{-3^{9}}$ $\frac{8}{+0^{2}}$ $\frac{7}{+0^{4}}$ $\frac{4}{+1^{5}}$ $\frac{0}{+1^{3}}$ $\frac{3}{+0^{8}}$ $\frac{5}{-0^{2}}$ $\frac{6^{5}}{-0^{1}}$ $\frac{8}{+0^{5}}$ $\frac{16}{+5^{1}}$

LAGUNITAS - EAST SWITCH
CROSS SECTIONS OF RIVER

Sta.	Ele ℄	Sub-Grade					
(-137			88 / -16.4	80 / -15.9	71 / -10.4	63 / -11.2	59 / -8.2
137+50			103 / -12.8	91 / -15.3	88 / -17.5	61 / -17.6	
138	101.30	100.47	122 / -6.0	73 / -8.3	66 / -15.0	50 / -17.8	4 / -19
+50	100.5	100.21		90 / -7.1	65 / -8.6	55 / -9.6	
+95.86		99.97		109 / -5.6	88 / -8.0	65 / -8.1	
9+25.86		99.82		108 / -4.1	68 / -7.0	58 / -10.8	
+55.86		99.66					
+88.86		99.49					

BANK –

53	√9	48	48	38	32	23°	27	18	11	0
12	-8²	X -6²	-28	-23	Siding	-07	-05	+03	+10	

Same general Slope

141	117	113	91
-66	-165	-183	-203

61	√6	40	35	33	20	145	19	1	√	0
76	-163	-73	X	-67	-05	Siding	-02	+01	+10	+11

175	145	126	117
+70	-51	-55	-69

√0	40	35√	27	26	25°	19	√1	13	7	0
178	-193	-176	-12²	-98	X	-58	Siding	-12	+04	+08

√1	√0	42	30	78	18¹	12	10⁵	8	4	0
95	-173	-177	-18²	-10²	X	-62	-42	-30	-05	+03

65	√8	√0	27⁴	20	18	14⁵	145	12	8	6	0
81	-17	-179	-174	-164	-132	-103	X	-92	-62	-40	-05

√8	√0	26¹	22	18	N⁶	N⁵	6	8	6	4	0
102	-179	-161	-15⁵	-112	-95	X	-65	-48	-29	-01	

11√	6√	√√	32	2√	20	18⁶	17	8	0
-37	-97	767	-176	-118	X	-92	-83	-√3	-06

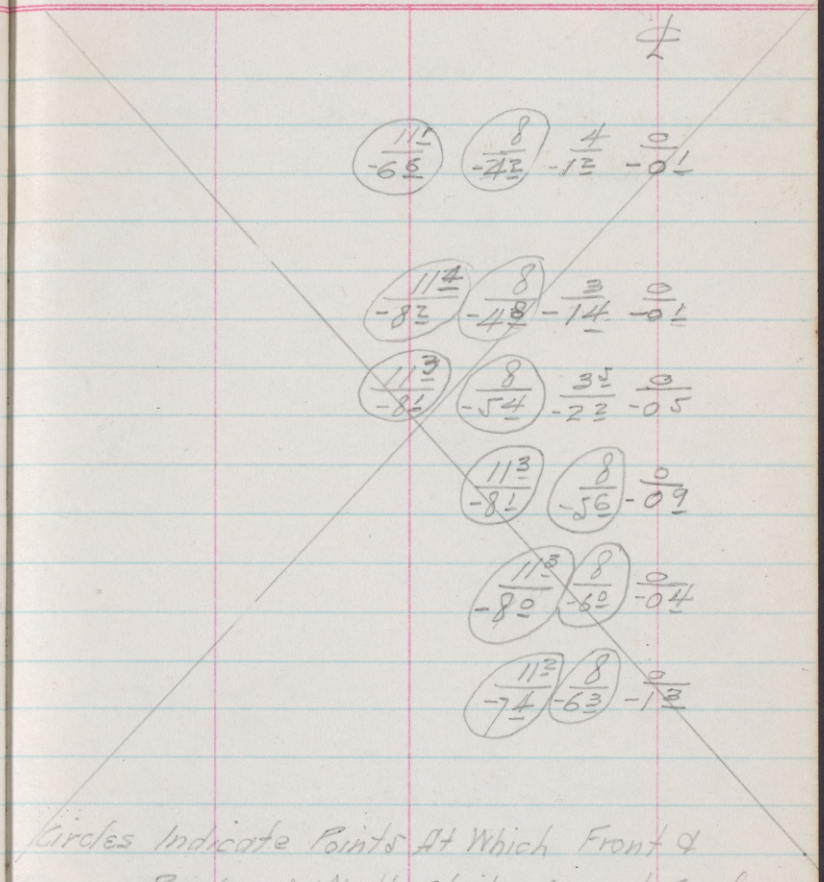
Width 22'	47⁰	22³	18⁵	8	2	0
Creek	X	-70	-52	-07	+01	

LAGUNITAS - RUBBLE WALL
AT EAST SWITCH

11-27-15

		Elev. ℄	Sub-Grade
138+60	Beg. of Wall.	100.1	100.16
138+80		100.0	100.06
138+95.9		99.5	99.97
139+11		99.0	99.90
139+26		99.4	99.82
139+45	End of Wall	98.4	99.25

Top of Outside of Wall To Be 10° From ℄



Circles Indicate Points At Which Front & Back of Wall Strike Ground Surface.

- LAGUNITAS -

- LOG CRIBBING AT EAST SWITCH

TOTAL LENGTH = 170 Feet -

12-9-15				
139+60				
139+40				
139+25				
139+10				
138+95				
138+80				
138+65				
138+50				
138+35				
138+20				
138+05				
137+90	101 ±	Beg. of Cribbing.		

17 CH.

Offsets Taken From Present ℄.

℄1 = Alignment Under Construction

℄2 = Line of Siding.

Circle Indicates Outer Face of Logs.

40 38 35 (28.5) 24 12 8.3 6 4 0
-18.8 -18.0 -12.9 -9.9 -8.6 -0.3 ℄1 -0.2 0 0

42 33 (28.5) 27.5 20 13 8.1 5 4 0
-17.8 -17.2 -13.5 -9.8 -4.5 -0.5 ℄1 -0.3 -0.3 0 0

40 (28.5) 27.5 22.5 17.5 12 7.8 7 4 0
-17.5 -15.7 -13.4 -9.7 -4.2 -0.7 ℄1 -0.5 0 0

40 33.5 (28.5) 25.5 20.5 17 9 7 6 4 0
-17.3 -17.1 -15.0 -11.5 -9.2 -5.9 -0.8 ℄1 +0.2 0 0

38 (28.5) 24.5 16.5 6 6.4 4 0
-17.6 -17.6 -14.9 -9.1 -0.2 ℄1 0 0

38 (28.5) 27.5 8 5.3 4 0
-18.3 -18.2 -16.1 -1.4 ℄1 -0.4 0

35 (28.5) 18 7 4 0.25 4.8 0
-18.2 -14.6 -9.5 -0.8 -0.5 ℄2 ℄1 0

37 33 (28.5) 23 8 4 0.7 3.7 0
-19.8 -18.2 -14.6 -11.4 -1.4 -0.5 ℄2 ℄1 0

37 33 (28.5) 24.5 23 14 11 9 1.8 2.7 0
-17.5 -18.3 -14.9 -11.3 -10.8 -6.3 -4.3 -1.4 ℄2 ℄1 0

36 33.5 (28.5) 19 10 7 3.6 3.6 2.0 0
-19.7 -18.8 -12.3 -9.3 -1.2 -0.7 0 ℄2 ℄1 0

38 34.5 (28.5) 13 10 5.3 1.2 0
-20.2 -18.6 -13.5 -2.3 -1.1 -0.2 ℄2 ℄1 0

40 37 32 (28.5) 23 16 12 7.5 7.5 1.8 0
-19.9 -17.1 -16.1 -13.3 -10.2 -2.6 -1.2 -0.5 ℄2 ℄1 0

Top Rail

LEVELS IN TUNNEL # 4

Sta.	+	H	−	Rod
B.M.	4.94	104.04		
866+50				4.0
67				3.76
+50				3.68
68				3.63
+50				3.55
69				3.65
+50				3.75
70				3.91
+50				4.09
71				4.30
+50				4.70
B.M.	+0.60	10.0.60		
72				0.75
72+50				1.24
73				1.70
+50				2.30
74				2.78
+50				3.44
75				4.06
+50				4.69
76				5.25
+50				5.82
T.P. 77			6.44	
	+1.09	95.25		
77+50				1.64

EAST
OF SAN RAFAEL — APRIL-4'16.

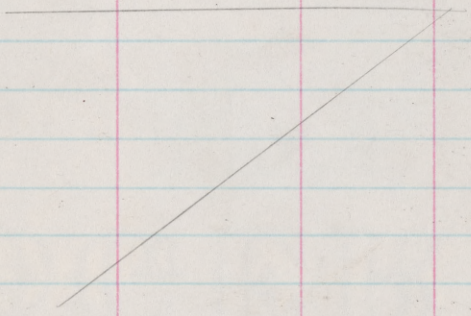
ELEV			
100.00	top	spike on WEST PORTAL TIMBER ON RIGHT.	
100.94			
101.18			
101.26			
101.31			
101.39			
101.29			
101.19			
101.03			
100.85			
100.64			
100.24			
100.00			
99.85			
99.36			
98.90			
98.30			
97.82			
97.16			
96.54			
95.91			
95.35			
94.78			
94.16			
93.61			

Plotted 4/11/16. Fee.

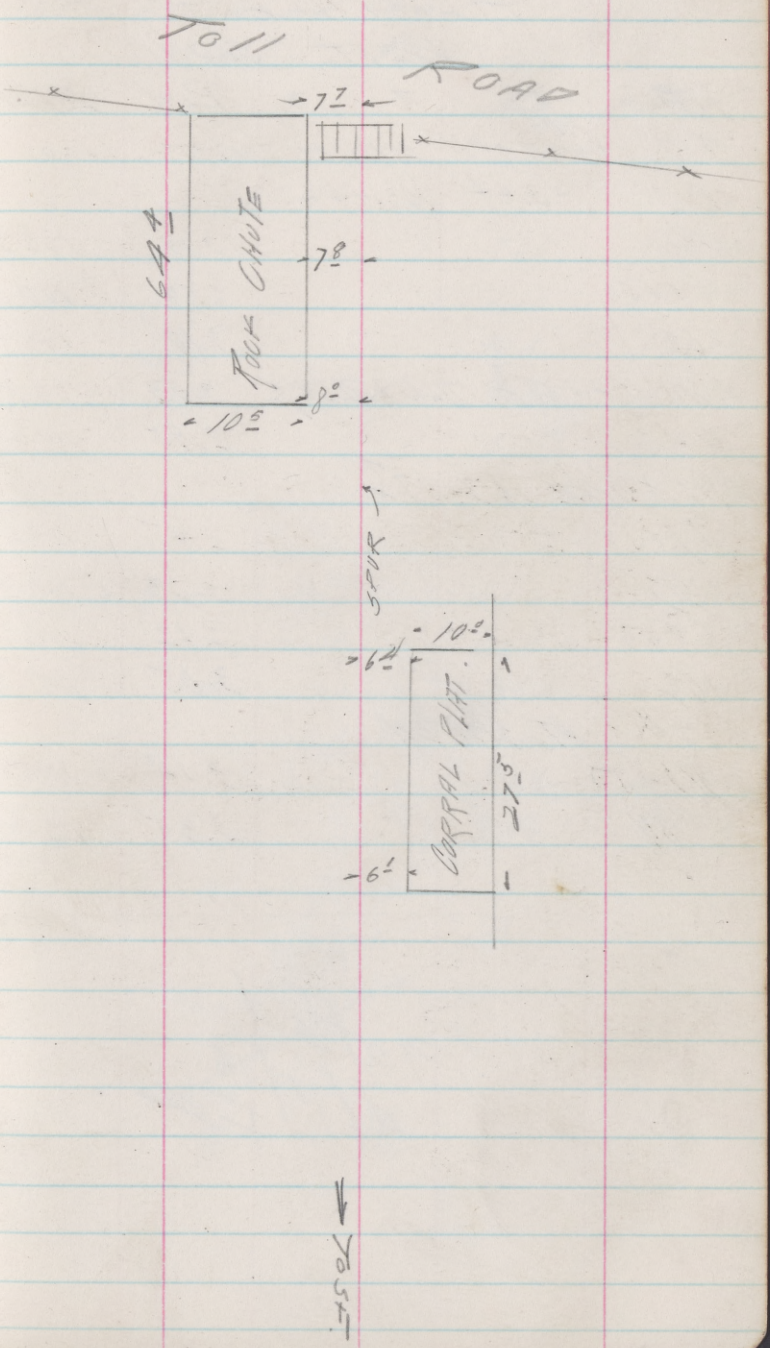
STA	+	H	-	Rod
78		95.75		2.23
+50				2.81
79				3.40
+50				4.07
80				4.65
+50				5.27
81				5.83
+50				6.46
82				7.08
T.P.			7.08	
	+1.54	89.71		
82+50				2.18
83				2.75
+50				3.40
84				3.99
+50				4.66
85				5.25
+50				5.85
B.T. SET - TOP SPIKE			-4.86	
86				6.44
+50				7.02
87				7.63
+50				8.19
88				8.85
+50				9.62
89				10.37
+50				11.10

ELEV.			
93.07			
92.44			
91.85			
91.18			
90.60			
89.98			
89.42			
88.79			
88.17			
88.17			
87.53			
86.96			
86.31			
85.72			
85.05			
84.46			
83.86			
	84.85	EAST POR THL OF LOT.	
83.27			
82.69			
82.08			
81.52			
80.86			
80.09			
79.34			
78.61			

Sta.	+	=	- Rod	Elev.
		89.71		
89+00			11.83	77.88
90+50			12.55	77.16
91			13.38	76.33



CHEDA SPUR
Clearances 4/16/15



- ALMONTE -

WEST - BOUND

STA.	+	HI	-	Rod	ELEV.
B.M.	sill- north east	corner-	tower.		10.0.
	+3.44	103.44			
166				3.10	100.34
65+50				3.10	100.34
65				3.10	100.34
P. SW. 164+57 ±	MILL VALLEY.			3.03	100.41
64				2.95	100.49
P. SW. X-OVER 163+67 ±					
63+50				2.97	100.47
63				3.03	100.41
+50				3.12	100.32
62				3.05	100.39
+85 ?	PT. SWITCH				
61+50				3.14	100.30
61				3.35	100.09

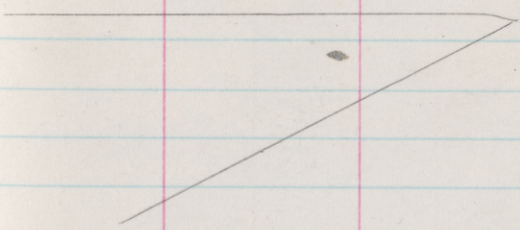
Plotted
4/11/16
F.C.

APRIL-4-'96.

-TOP RAIL LEVELS-

EAST BOUND.

STA.	+	↑	-	Rod	ELEV.
		103.44			
				3.20	100.24
				3.18	100.26
				3.18	100.26
				3.20	100.24
				3.17	100.27
				3.13	100.31
				3.12	100.32
				3.18	100.26
				3.19	100.25
				3.22	100.22
				3.46	99.98



CORTE MADERA

Top Rail Levels over Spur

W.J.H.
G.L.B.

4/15/16

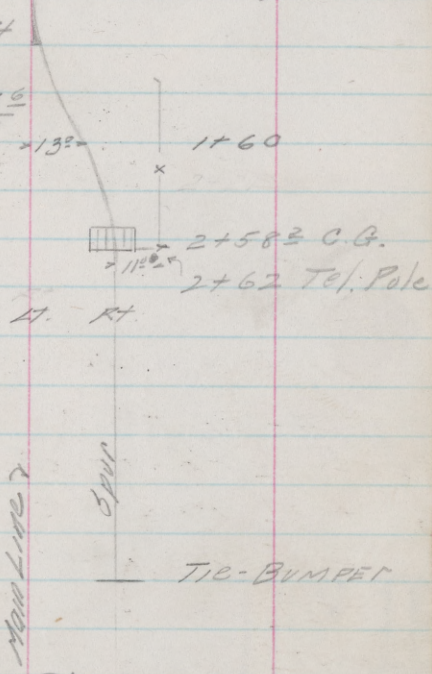
Sta.	+	H.I.	−	Elev.
B.M	4 1/2	104 1/2		100
0+50			4	100 1/2
1+00			3 7/8	100 5/8
+50			3 7/8	100 5/8
2			3 7/8	100 5/8
+50			4	100 1/2
3+00			3 7/8	100 5/8
+50			3 7/8	100 5/8
4			3 7/8	100 5/8
+50	℄ ROAD XING		3 1/2	101
5			3	101 1/2
+50			2 7/8	101 5/8
+93 1/2	END of TR.		2 7/8	101 5/8

Ass'd. Elev. Top Rail at P.S. = 0+00 = 309+52.4 M.L.

X Sections on Rt

Act. Rod

4.1	4.1	4.8	11.6	13.6
3	4	6	17.F	27
4.3	4.3	5.0	8.8	10.5
T.T.	4.	6	13.F	17
4.3	5.5	7.2		
4	11	15		
4.1	5.6			
4	20			



STEEL

Lt.	Rt.
1+12.0 - 75# to 60#	1+86.5 - 75# to 60#
2+36.0 - 60# to 50#	2+21.0 - 60# to 50#

Plotted 4/17/16

M.J.A.

LANSDALE

LEVELS-TOP RAIL-TRES. 17-D

W.J.A. April 14-1916

G.L.B. STA.	+	⊼	− Lt.	− Rt	ELEV. Lt.	ELEV. Rt
B.M.	3.67	103.67			100	
568			4^{3}		99^{37}	
+50			4^{3}		99^{37}	
67			4^{39}	4^{4}	99^{28}	99^{21}
+50			4^{51}	4^{47}	99^{16}	99^{20}
66			4^{59}	4^{58}	99^{08}	99^{09}
+55	℄ ROAD			4^{53}		99^{14}
+50			4^{43}	4^{54}	99^{24}	99^{13}
$+15^{7}$	BLK. HEAD TRES.					
$+14^{8}$	BENT # 7		4^{3}	4^{55}	99^{37}	99^{12}
$65+00^{2}$	BENT # 6		4^{28}	4^{52}	99^{39}	99^{15}
$+83^{9}$	BENT # 5		4^{3}	4^{52}	99^{37}	99^{15}
$+68^{5}$	BENT # 4		4^{28}	4^{52}	99^{39}	99^{15}
$+52^{9}$	BENT # 3		4^{27}	4^{52}	99^{40}	99^{15}
$+47^{5}$	LOW JOINT		4^{26}		99^{41}	
$+36^{4}$	BENT # 2		4^{23}	4^{49}	99^{44}	99^{18}
$+21^{3}$	BENT # 1		4^{23}	4^{48}	99^{44}	99^{19}
$+20^{3}$	BLK. HEAD TRES					Dotted
64			4^{38}	4^{56}	99^{29}	99^{11}
+50			4^{98}	5^{14}	98^{69}	98^{53}
63			5^{73}	5^{79}	97^{94}	97^{88}
+50			6^{38}	6^{42}	97^{29}	97^{25}
62			7^{0}		96^{67}	
+50			7^{5}		96^{17}	
561			8^{0}		95^{67}	

TRES. 17-D-

Note Super Elev.

+ = Left rail above Rt. } in hundredths
− = " " below " }

North East Cor. Depot top of Iron Rail Assm. 100

.00⁰
.00⁰
+0¹
−0¹
−0¹
BRIDGE
+1¹

565 + 23⁷ E.C.

+2⁵
+2⁴
+2²
+2⁴
+2⁵

5 Pile Bents

30° Rt 56-29

+2⁶
Heavy Line +2⁵

+1⁸
+1⁶
+0⁶
+0⁴
0⁰
0⁰
0⁰

563 + 40⁹ B.C.

Plotted
4/14/10
W.J. Andrews

To S.F.

LEVELS: Top Rail:

4/26/15

STA	+	⊼	−	House Track	E.B Track	W.B Track	Tr. on Rt
B.M.	2^{76}	10^{02}					
808					4^{8}	4^{6}	
+50				5^{4}	5^{3}	5^{0}	5^{3}
7				5^{8}	5^{6}	5^{2}	5^{4}
+50				6^{0}	5^{8}	5^{6}	5^{7}
6					5^{9}	5^{9}	5^{8}
+50					5^{9}	5^{8}	6^{1}
T.P.	4^{18}	$8.^{28}$	5^{92}				
5				4^{6}	4^{1}	4^{1}	4^{5}
+50				4^{5}	4^{1}	4^{2}	4^{7}
4				4^{5}	4^{1}	4^{2}	4^{8}
+50				4^{3}	4^{3}		4^{6}
+45°	E.L. Trcs. 16 D-					4^{15}	
$3+01^{3}$	W.L. "	"				4^{08}	
3+00				4^{4}	4^{3}		5^{0}
+50				4^{6}	4^{3}	4^{4}	5^{2}
2				4^{7}	4^{4}	4^{6}	5^{3}
+50				4^{9}	4^{6}	4^{7}	5^{2}
1				5^{2}	4^{8}	4^{9}	5^{0}
+50				5^{7}	4^{9}	5^{0}	5^{0}
800				6^{1}	5^{1}	5^{0}	
P.S. $99+80^{8}$							
P.S. $99+15^{8}$							
799				6^{5}	5^{2}	5^{0}	
T.P.	3^{37}	6^{30}	5^{35}				
98				4^{9}	3^{4}	3^{3}	
97				4^{2}	3^{5}	3^{5}	

SCHUETZEN TO SAN RAFAEL

ELEV.

W.J.A.
M.K.

Elev.	Hse Tr.	EB Tr.	W.B Tr.	Tr. on R/W		
7.259		10			NE Cor Iron Sill on NW Cor Depot	7.26
						2.76
						10.02
		5.2	5.4			5.92
						4.10
						4.18
						8.28
	4.6	4.7	5.0	4.7		5.35
	4.2	4.4	4.8	4.6		2.93
	4.0	4.2	4.4	4.3		3.37
		4.1	4.1	4.2		6.30
		4.1	4.2	3.9		
4.10		8.3				
	3.7	4.2	4.2	3.8		
	3.8	4.2	4.1	3.6		
	3.8	4.2	4.1	3.5		
	4.0	4.0		3.7		
			4.15			
			4.22			
	3.9	4.0		3.3		
	3.7	4.0	3.9	3.1		
	3.6	3.9	3.7	3.0		
	3.4	3.7	3.6	3.1		
	3.1	3.5	3.4	3.3		
	2.6	3.4	3.3	3.3		
	2.2	3.2	3.3			
	1.8	3.1	3.3			
2.93		6.3				
	1.4	2.9	3.0			
	2.1	2.8	2.8			

Top Rail Levels: Schuetzen

STA	+	*	-	House Track	E.B. Tr.	W.B. Tr.	Wye Tr.
796+00		6 30		4 6	3 5	3 5	4 4
95					3 8	3 6	
94					4 0	3 8	
93				5 3	4 3	3 9	4 2
T.P.	3 31	5 32	4 29				
92					3 4	3 1	
91					3 5	3 2	
90				4 4	3 4	3 2	4 1
89					3 4	3 3	
88					3 2	3 1	
87				4 3	3 4	3 2	3 9
T.P.	4 65	6 48	3 49				
86					4 5	4 3	
85					4 4	4 2	
84					3 9	3 8	
83+96 7	P.S. Wye Tr.						
83+73 3	El. Trks.	16 0 -			3 75	3 75	
+41 5	W.L. "	"			3 80	3 80	
83					4 1	3 9	
B.M. Sig. 16.5			4 48				
82					4 3	4 2	
81+03 6	P.S. Xover						
81					4 5	4 3	
T.P.	3 90	5 69	4 69				
80					3 8	3 6	
79					3 8	3 6	
78					3 8	3 6	

6.48
.48
2.00

to San Rafael

Elev's.

ELEV.	House Tr.	E.B. Tr.	W.B Tr.	Wye Tr.	
	1 7	2 8	2 8	1 9	
		2 5	2 7		
		2 3	2 5		
	1 0	2 0	2 4	1 4	
2 01		53			
		1 9	2 2		
		1 8	2 1		
	0 9	1 9	2 1	1 2	
		1 9	2 0		
		2 1	2 2		
	1 0	1 9	2 1	1 4	
1 83		65			
		2 0	2 2		
		2 1	2 3		
		2 6	2 7		
		2 75	2 75		
		2 7	2 7		
		2 4	2 6		
2.00		B.M. Signal 16.5 N.E. Cor. top of Bolt.			
		2 2	2 3		
		2 0	2 2		
		2 0	2 2		
1 79		57			
		1 9	2 1		
		1 9	2 1		
		1 9	2 1		

.630
.429
2.01
.331
.532
.349
1.83
.465
.648
.469
.179
.30
5.69

Top Rail Levels: Schuetzen

STA.	+	⊼	−	E.B.	W.B.
777+00		$5^{\underline{69}}$		$3^{\underline{8}}$	$3^{\underline{7}}$
76				$3^{\underline{9}}$	$3^{\underline{7}}$
75				$3^{\underline{9}}$	$3^{\underline{7}}$
T.P.	$3^{\underline{98}}$	$5^{\underline{60}}$	$4^{\underline{07}}$		
74				$3^{\underline{9}}$	$3^{\underline{7}}$
73				$3^{\underline{8}}$	$3^{\underline{8}}$
72				$3^{\underline{7}}$	$3^{\underline{7}}$
72 X Sections					
71+$23^{\underline{9}}$ EL. 16 A - Tres.				$3^{\underline{55}}$	$3^{\underline{64}}$
+08° W.L. " "				$3^{\underline{49}}$	$3^{\underline{58}}$
71				$3^{\underline{5}}$	$3^{\underline{60}}$
70				$3^{\underline{7}}$	$3^{\underline{7}}$
69				$3^{\underline{8}}$	$3^{\underline{9}}$
T.P.	$3^{\underline{45}}$	$4^{\underline{79}}$	$4^{\underline{26}}$		
68				$3^{\underline{2}}$	$3^{\underline{2}}$
67				$3^{\underline{4}}$	$3^{\underline{3}}$
66				$3^{\underline{5}}$	$3^{\underline{3}}$
65				$3^{\underline{6}}$	$3^{\underline{3}}$
64				$3^{\underline{5}}$	$3^{\underline{3}}$
63				$3^{\underline{5}}$	$3^{\underline{3}}$
T.P.	$4^{\underline{25}}$	$5^{\underline{41}}$	$3^{\underline{63}}$		
62				$4^{\underline{0}}$	$3^{\underline{9}}$
61				$4^{\underline{0}}$	$3^{\underline{9}}$
60				$3^{\underline{9}}$	$3^{\underline{9}}$
59				$3^{\underline{8}}$	$3^{\underline{7}}$
58				$3^{\underline{5}}$	$3^{\underline{6}}$
57+$47^{\underline{3}}$ P.S. Xover					

to San Rafael

Elevs.

ELEV.	EB.	WB
	57	
	1 9	2 0
	1 8	2 0
	1 8	2 0
1.62	56	
	1 7	1 9
	1 8	1 8
	1 9	1 9
	-5/16 -1 6/11 -1 2/8 0/5 0/0	0/0 0/5 -0 7/9 -0 8/11 -3 7/16 -4 4/21
	2 05	1 96
	2 11	2 02
	2 1	2 0
	1 9	1 9
	1 8	1 7
1.34	48	
	1 6	1 6
	1 4	1 5
	1 3	1 5
	1 2	1 5
	1 3	1 5
	1 3	1 5
1.16	54	
	1 4	1 5
	1 4	1 5
	1 5	1 5
	1 6	1 7
	1 9	1 8

569
407
1.62
398
560
426
1.34
3.45
4.79
363
1.16
425
5.41

Top Rail Levels: Schuetzen

STA.	+	↑	-	E.B.	W.B
757+00		5 41		3 0	3 2
T.P.	6 37	8 27	3 51		
56				5 1	5 2
55+48 6	P.S. Store Track				
55				4 3	4 3
54+60	℄ County Road.		S.Q. Bronn	4 0	4 0
54			5 1	3 7	3 6
53				3 5	3 4
52				3 1	3 0
51				2 5	2 3
T.P.	8 37	14 0	2 64		
50				7 1	7 2
49				5 9	5 7
48				4 1	4 5
48	X sections				
47				3 5	3 2
46				2 3	1 8
45				1 0	0 6
T.P.	7 56	20 64	0 92		
44				6 6	6 3
43				5 2	5 1
42+76 9	E.L. 15-D-Tms			4 78	4 75
42+13 1	W.L. " "			3 80	3 83
42				3 6	3 6
+50				3 0	3 1
41				2 4	2 3
+50				1 7	2 1

to San Rafael

Elev. 3

Elev.	E.B.	W.B
	2 4	2 2
1 90	83	
	3 2	3 1
	4 0	4 0
	4 3	4 3
	4 6	4 7
	4 8	4 9
	5 2	5 3
	5 8	6 0
5 63		
	6 9	6 8
	8 1	8 3
	9 3	9 5
-3 8/15 -1 3/10 -1 3/8 0/5 0/0	0/0	0/5 -1 2/8 -1 0/10 -3 8/15
	10 5	10 8
	11 7	12 2
	13 0	13 4
1308	204	
	14 0	14 3
	15 4	15 5
	15 82	15 85
	16 8	16 77
	17 0	17 0
	17 6	17 5
	18 2	18 3
	18 9	18 5

5-635
35
1.90
6 37
8.27
264
563
831
1400
092
1308
756
2064

Top Rail Levels: Schoetzen

STA	+	℄	-	E B	W B.
740+00		20 64		1 2	1 4
+50				0 7	1 1
T. P.	6 15	26 01	0 78		
39				5 6	6 0
+50				5 1	5 5
38				4 6	5 0
+50				4 2	4 6
37				3 7	4 1
+50				3 5	3 9
36				3 2	3 1
35				2 4	2 9
34				1 6	2 0
33				0 7	1 0
T. P.	8 34	33 02	1 33		
32				6 7	7 2
31				5 6	6 1
+50				5 0	5 5
30				4 5	4 7
+50				4 1	4 1
29				3 6	3 5
+50				2 9	2 9
28				2 3	2 3
+50				1 1	1 8
T. P.	5 5	36 48	2 04		
27				4 5	4 7
+50				4 1	4 3
26				3 6	3 8

to San Rafael

Elevs.

Elev.	E.B.	W.B.
	19 4/10	19 2/10
	19 9/10	19 5/10
19 86/100	36	
	20 4/10	20 0/10
	20 9/10	20 5/10
	21 4/10	21 0/10
	21 8/10	21 4/10
	22 3/10	21 9/10
	22 5/10	22 1/10
	22 8/10	22 3/10
	23 6/10	23 1/10
	24 4/10	24
	25 3/10	25 0/10
24 68/100	33	
	26 3/10	25 8/10
	27 4/10	26 9/10
	28 0/10	27 5/10
	28 5/10	28 3/10
	28 9/10	28 9/10
	29 4/10	29 5/10
	30 1/10	30 1/10
	30 7/10	30 7/10
	31 4/10	31 2/10
30 98/100	B.M. - Sig. 15 5/10 N.E Bolt in Flange	
	32 0/10	31 8/10
	32 4/10	32 2/10
	32 9/10	32 7/10

1986
615
2601
133
2468
834
3302
204
30.98
55
3648

Top Rail Levels: Schoetzen to

STA	+	℄	-	E.B.	W.B.
125+50		36 48		3 1	3 4
25					2 9
24+78	EAST PORTAL				2 7

San Rafael — Apr. 27. 1916
Elevs. — W.J.A. M.K.

Elev.	E.B.	W.B.
	33 4	33 1
		33 6
		33 8

Summit Track

LAGUNITAS

B.C. 1A
138 + 99.1A
138+38.2
6.05
3°48' 05"
5.06
E.C. PRESENT
& E.C. PROPOSED SIDING
MAIN
137+78.32
PROPOSED MAIN LINE
E.C.
137+82.24
MAIN LINE PROPOSED
T.C. 14°27'21"
R = 460.17
D = 1335.15
S.T. = 372.15
L =
B.C. PROPOSED MAIN
132+09.5

PROPOSED LINE CHANGE-

MAIN LINE SIDING SAME PT.

NOTE: ——

STATIONING BACKED AROUND FROM B.C. T_A 138+99.14 ON BOTH PROPOSED MAIN & PROPOSED SIDING-

LEVELS ON LINE OF (PROPOSED) MAIN LINE.

STA.	+	H	Rod.	ELEV.
B.M. ASS. ELEV. STAKE 20' RT. OF E.S. 139+70. SEE PAGE 6.	10.37	110.37		100.00
TOP TIE H.L. 139+50		110.37	9.60 ✓	101.77
9+00			9.6 ✓	101.77
8+50			9.4 ✓	101.0
8+38 △			9.3 ✓	101.1
8+00			9.0 ✓	101.4
E.C. 137+82.24			9.3 ✓	101.1
7+50 GROUND.			9.8 ✓	100.6
7+00			8.4 ✓	102.0
6+50			7.7	102.7
6+00			7.4	103.0
5+50			7.1	103.3
5+00			5.2	105.2
4+50			4.7	105.7
4+00			5.4	105.0
3+50			5.1	105.3
3+00			6.3	104.1
2+50			6.0	104.4
P.C. 132+09.5 PROPOSED MAIN.			6.1	104.3
△ 131+53.5 ← PUT ON EQUATION BETWEEN SIDING & MAIN			6.0 TOP TIE	104.4
10' further WEST from △ TOP TIE			6.5	103.9

TOPOGRAPHY - TO RIGHT & LEFT (FROM SAN FRANCISCO) FROM NEW ℄ PROPOSED MAIN LINE.

LT.		℄										RT.
	ELEV. 101.0	ELEV. 101.0	ELEV. 100.6	ELEV. 101.9		ELEV. 102.4		ELEV. 101.2				
	+0.4	+0.4	0	+1.3		+1.8		+0.6				
DISTANCE OUT =	11 TOP TIE	5	℄	4 TOP TIE		11		16				
		-0.7	0	+1.3				+4.4				
		12	℄	18 TOP TIE PRES. MAIN				30				
	-1.1		0	+0.5	-0.9	-0.8	+0.3		+0.7	-0.6	-0.5	+5.1
	15		℄	2	5	7	9 TOP TIE		15	19	21	32
	-1.1		0	+0.4	-1.0	-1.0	+0.2	+0.7	-0.3	-0.2	+3.0	+3.1 +7.4
	20		℄	2	5	7	9 TOP TIE	16 TOP TIE	20	22	25	27 33
	-1.3		0	+0.5	-1.0	-0.8	+0.2	+0.8	-0.4	-0.3	+2.3	+4.9 Hon Lo
	30		℄	3	6	8	10 TOP TIE	17	21	23	25	35
	-1.8		0	+0.2	-0.4	-2.3	-1.3	-0.8	-1.7	-1.0	+3.7	+4.2
	30		℄	2	4	7	9 TOP TIE	17	19	25	30	50
	-0.1	+0.7	0	-0.4	-2.4	-1.4	-1.0	-2.0	-2.0	+4.7	+5.7	
	25	6	℄	4	8	11	17	19	22	34	46	
	-1.9	+0.2	0	-0.1	-1.1	-0.7	0	-1.1	0	+5.4	+6.4	
	32	20	℄	4	8	9	16	18	25	31	56	
-2.1	+0.1	+1.0	0	-1.3	-0.9	-0.2	-1.0	+0.8	+1.4			
TOP TIE 30 SIDING	25	8	℄	5	7	15	17	25	37			
	-1.7	-0.8	0	+1.5	+1.1	-0.3	+0.7					
	24	12	℄	17	21	23	35					
	-0.8	+0.2	0	+0.5	+0.8	+1.4	+0.7	+1.7				
	30	15	℄	8	9	16	21	32				

OVER

LEVELS ON LINE PROPOSED SIDING.

STA.	+	=	Rod.	ELEV. ASSUMED.
B.T. SAME AS PREVIOUS PAGE	10.37	110.37		100.00
E.C. 137+78.77		110.37		
			TOP TIE.	
7+50			8.20	102.17
7+00			7.5	102.9
6+50			7.9	102.5
6+00			7.5	102.9
5+50			7.5	102.9
5+00			7.5	102.9
4+50			6.7	103.7
4+00			6.2	104.2
3+50			5.3	105.1
3+00			6.1	104.3
2+50			5.0	105.4
2+00			5.5	104.9
P.C. 131+90.54			5.6	104.8

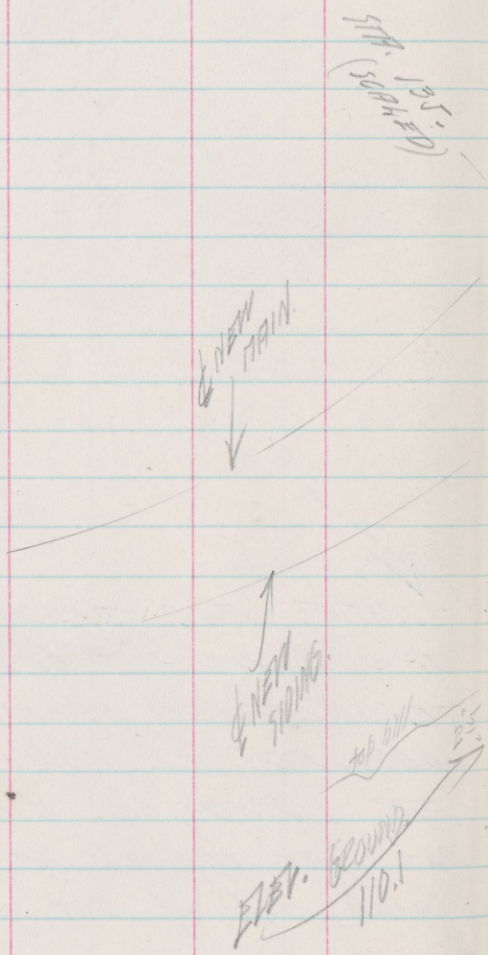
ALL LEVELS TAKEN —
PAGE 6 THIS BOOK
USED SAME
BENCH MARK —

NOTE: ALL TOPOGRAPHY
TAKEN WITH "Y" LEVEL.
TOPOG. TAKEN FROM ℄ ON NEW
PROPOSED M.L. CAN BE USED
FOR SIDING. i.e. it was taken
out far enough on right to
catch top of cut for siding—

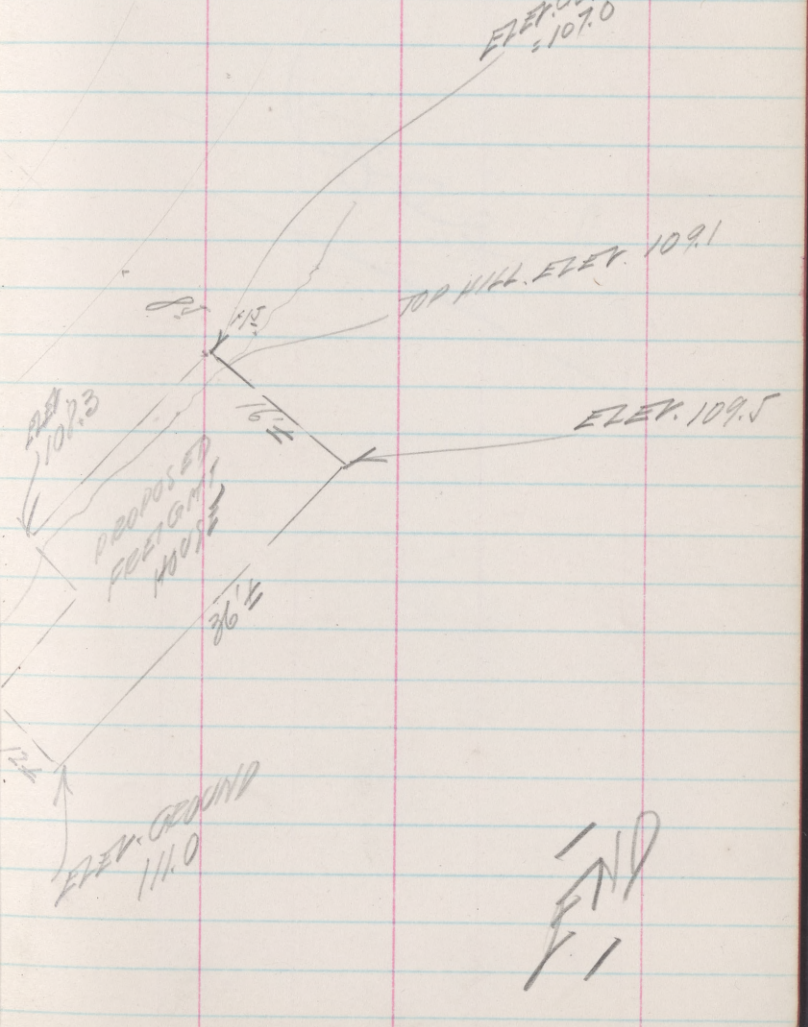
—WER—

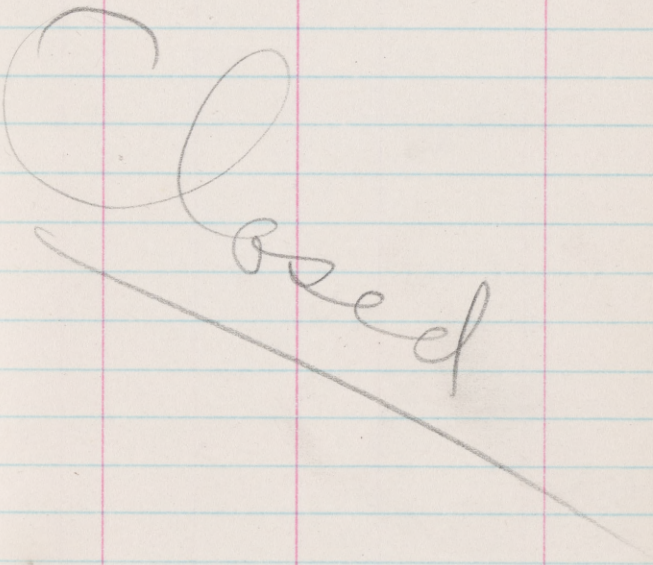
-LAGUNITAS

STAKED. FREIGHT HOUSE-



AS SCALED FROM BLUE-PRINT
CE-1223-28

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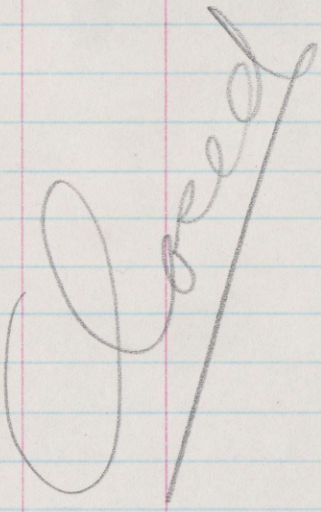
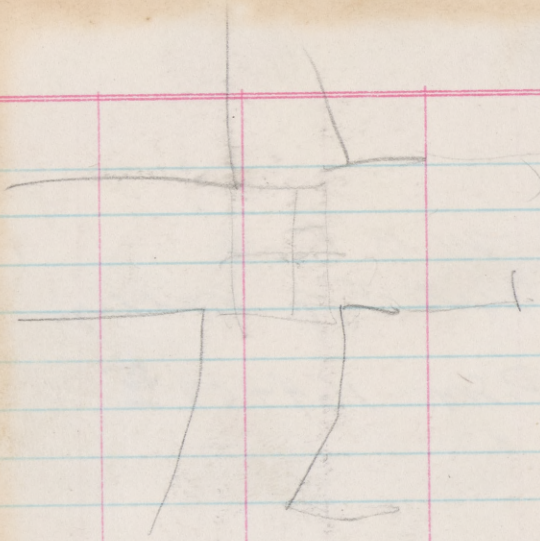
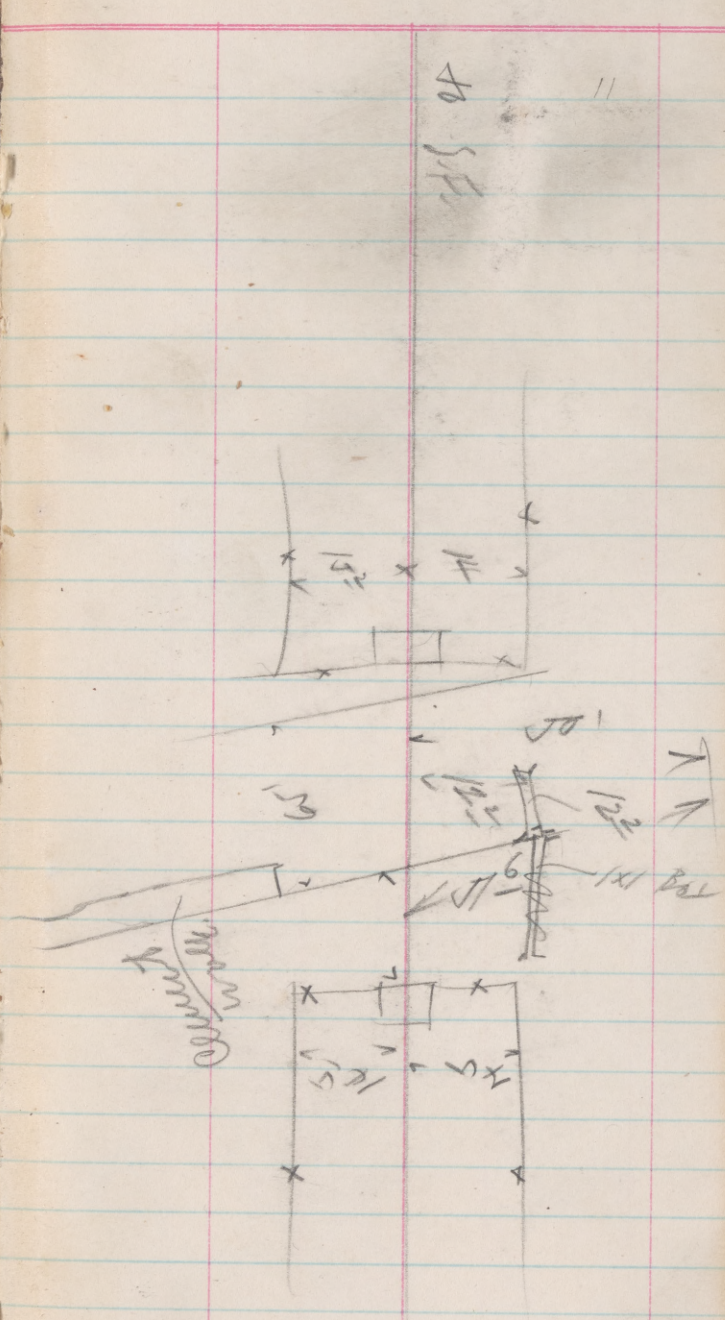


W. B. Trak
Out of valley

P. Sw. 164+57 5





.52
.13

11

Col- J. N. Benway -

E. M. Buckley -

5 Z.6
.52